

SEQUENCE LISTING

<110> Reiter, Christian

<120> IMMUNOLOGICAL REAGENT SPECIFICALLY INTERACTING WITH THE
EXTRACELLULAR DOMAIN OF THE HUMAN ZETA CHAIN

<130> C1368 US

<140> 09/743,482

<141> 2001-02-28

<150> EP 98 11 2867.1

<151> 1998-07-10

<160> 54

<170> PatentIn version 3.2

<210> 1

<211> 33

<212> DNA

<213> Rattus norvegicus

<220>

<221> CDS

<222> (1)..(33)

<400> 1

cag gca agc cag gac att ggt aat tgg tta gca
Gln Ala Ser Gln Asp Ile Gly Asn Trp Leu Ala
1 5 10

33

<210> 2

<211> 11

<212> PRT

<213> Rattus norvegicus

<400> 2

Gln Ala Ser Gln Asp Ile Gly Asn Trp Leu Ala
1 5 10

<210> 3

<211> 21

<212> DNA

<213> Rattus norvegicus

<220>

<221> CDS

<222> (1)..(21)

<400> 3

RECEIVED

SEP 15 2003

TECH CENTER 10002600



agt gca acc agc ttg gca gac
Ser Ala Thr Ser Leu Ala Asp
1 5

21

<210> 4
<211> 7
<212> PRT
<213> Rattus norvegicus

<400> 4

Ser Ala Thr Ser Leu Ala Asp
1 5

<210> 5
<211> 27
<212> DNA
<213> Rattus norvegicus

<220>
<221> CDS
<222> (1)..(27)

<400> 5
cta cag cgt tat agt aat ccc aac acg
Leu Gln Arg Tyr Ser Asn Pro Asn Thr
1 5

27

<210> 6
<211> 9
<212> PRT
<213> Rattus norvegicus

<400> 6

Leu Gln Arg Tyr Ser Asn Pro Asn Thr
1 5

<210> 7
<211> 30
<212> DNA
<213> Rattus norvegicus

<220>
<221> CDS
<222> (1)..(30)

<400> 7
ggc tac aca ttc acc agt tac gat atg cac
Gly Tyr Thr Phe Thr Ser Tyr Asp Met His
1 5 10

30

<210> 8
 <211> 10
 <212> PRT
 <213> Rattus norvegicus

<400> 8

Gly Tyr Thr Phe Thr Ser Tyr Asp Met His
 1 5 10

<210> 9
 <211> 51
 <212> DNA
 <213> Rattus norvegicus

<220>
 <221> CDS
 <222> (1)..(51)

<400> 9
 tgg att tat cct gga aat ggt aat act aag tac aat caa aag ttc aat 48
 Trp Ile Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe Asn
 1 5 10 15

ggg 51
 Gly

<210> 10
 <211> 17
 <212> PRT
 <213> Rattus norvegicus

<400> 10

Trp Ile Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe Asn
 1 5 10 15

Gly

<210> 11
 <211> 42
 <212> DNA
 <213> Rattus norvegicus

<220>
 <221> CDS
 <222> (1)..(42)

<400> 11
gat tgg cat tac tat agc agc tat atc cgt ccc ttt gct tac
Asp Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr
1 5 10

42

<210> 12
<211> 14
<212> PRT
<213> Rattus norvegicus

<400> 12
Asp Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr
1 5 10

<210> 13
<211> 369
<212> DNA
<213> Rattus norvegicus

<220>
<221> CDS
<222> (1)..(369)

<400> 13
cag gta cag ctg cag caa tct ggg gct gaa cta gtg aag cct ggg tcc
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ser
1 5 10 15

48

tca gtg aaa att tcc tgc aag gct tct ggc tac aca ttc acc agt tac
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

96

gat atg cac tgg ata aaa cag cag cct gga aat ggc ctt gag tgg att
Asp Met His Trp Ile Lys Gln Gln Pro Gly Asn Gly Leu Glu Trp Ile
35 40 45

144

ggg tgg att tat cct gga aat ggt aat act aag tac aat caa aag ttc
Gly Trp Ile Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe
50 55 60

192

aat ggg aag gca aca ctc act gca gac aaa tcc tcc agc aca gcc tat
Asn Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

240

atg cag ctc agc agc ctg aca tct gag gac tct gca gtc tat ttc tgt
Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

288

gca aga gat tgg cat tac tat agc agc tat atc cgt ccc ttt gct tac
Ala Arg Asp Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr
100 105 110

336

tgg ggc caa ggc act ctg gtc act gtc tct tca
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

369

<210> 14
 <211> 123
 <212> PRT
 <213> Rattus norvegicus

<400> 14

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ser
 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

Asp Met His Trp Ile Lys Gln Gln Pro Gly Asn Gly Leu Glu Trp Ile
 35 40 45

Gly Trp Ile Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe
 50 55 60

Asn Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95

Ala Arg Asp Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 15
 <211> 321
 <212> DNA
 <213> Rattus norvegicus

<220>
 <221> CDS
 <222> (1)..(321)

<400> 15

gac atc cag atg aca cag tct cct gct tcc ctg tct gcg tct ccg gaa
 Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala Ser Pro Glu

48

1	5	10	15	
gaa att gtc acg atc aca tgc cag gca agc cag gac att ggt aat tgg				96
Glu Ile Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Gly Asn Trp				
20		25	30	
tta gca tgg tat cag cag aaa cca ggg aaa tct cct caa ctc ctg atc				144
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro Gln Leu Leu Ile				
35		40	45	
tat agt gca acc agc ttg gca gac ggg atc cca tca agg ttc agc ggc				192
Tyr Ser Ala Thr Ser Leu Ala Asp Gly Ile Pro Ser Arg Phe Ser Gly				
50		55	60	
agt aga tct ggt aca cag tat tct ctt aag atc agc aga cta cag gtt				240
Ser Arg Ser Gly Thr Gln Tyr Ser Leu Lys Ile Ser Arg Leu Gln Val				
65		70	75	80
gaa gat act gga atc tat tac tgt cta cag cgt tat agt aat ccc aac				288
Glu Asp Thr Gly Ile Tyr Tyr Cys Leu Gln Arg Tyr Ser Asn Pro Asn				
85		90	95	
acg ttt gga gct ggg acc aag ctg gag ctg aaa				321
Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys				
100		105		

<210> 16
 <211> 107
 <212> PRT
 <213> Rattus norvegicus

<400> 16

Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala Ser Pro Glu				
1	5	10	15	
Glu Ile Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Gly Asn Trp				
20		25	30	
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro Gln Leu Leu Ile				
35		40	45	
Tyr Ser Ala Thr Ser Leu Ala Asp Gly Ile Pro Ser Arg Phe Ser Gly				
50		55	60	
Ser Arg Ser Gly Thr Gln Tyr Ser Leu Lys Ile Ser Arg Leu Gln Val				
65		70	75	80
Glu Asp Thr Gly Ile Tyr Tyr Cys Leu Gln Arg Tyr Ser Asn Pro Asn				
85		90	95	

Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
 100 105

<210> 17
 <211> 1637
 <212> DNA
 <213> artificial

<220>
 <223> Synthetic DNA Sequence

<400> 17
 gaattcacca tgggatggag ctgtatcatc ctcttcttgg tagcaacagc tacaggtgta 60
 cactccgata tccagatgac acagtctcct gcttcctgt ctgcgtcccc ggaagaaatt 120
 gtcacgatca catgccaggc aagccaggac attggtaatt ggtagcatg gtatcagcag 180
 aaaccagga aatctcctca actcctgac tatagtcaa ccagcttggc agacgggatc 240
 ccatcaaggt tcagcggcag tagatctggt acacagtatt ctcttaagat cagcagacta 300
 caggttgaag atactggaat ctattactgt ctacagcgtt atagtaatcc caacacgttt 360
 ggagctggga ccaagctgga gctgaaaggt ggtggtggtt ctggcggcgg cggctccggt 420
 ggtggtggtt ctcaggtaca gctgcagcaa tctggagctg agctagtga gctgggtcc 480
 tcagtga aaa tttcctgcaa ggcttctggc tacacattca ccagttacga tatgcactgg 540
 ataaaacagc agcctggaaa tggccttgag tggattgggt ggatttatcc tggaaatggt 600
 aatactaagt acaatcaaaa gttcaatggg aaggcaacac tcaactgcaga caaatcctcc 660
 agcacagcct atatgcagct cagcagcctg acatctgagg actctgcagt ctatttctgt 720
 gcaagagatt ggcattacta tagcagctat atccgtccct ttgcttactg gggccaaggc 780
 actctggtca ctgtctcttc cggaggtggt ggttctgagg tgcagctgct cgagcagtct 840
 ggagctgagc tggcgaggcc tggggcttca gtgaagctgt cctgcaaggc ttctggctac 900
 accttcacaa actatggttt aagctgggtg aagcagaggc ctggacaggt ccttgagtgg 960
 attggagagg tttatcctag aattggtaat gcttactaca atgagaagtt caagggcaag 1020
 gccacactga ctgcagacaa atcctccagc acagcgtcca tggagctccg cagcctgacc 1080
 tctgaggact ctgcggtcta tttctgtgca agacggggat cctacgatac taactacgac 1140
 tgggtacttcg atgtctgggg ccaagggacc acggtcaccg tctcctcagg tgggtggtggt 1200
 tctggcggcg gcggctccgg tgggtggtggt tctgagctcg tgatgacca gactccactc 1260
 tccctgctg tcagtcttgg agatcaagcc tccatctctt gcagatctag tcagagcctt 1320

gtacacagta atggaacac ctatttacat tggtaacctgc agaagccagg ccagtctcca 1380
aagctcctga tctacaaagt ttccaaccga ttttctgggg tcccagacag gttcagtggc 1440
agtggatcag ggacagatatt cacactcaag atcagcagag tggaggctga ggatctggga 1500
gtttatttct gctctcaaag tacacatggt ccgtacacgt tcggaggggg gaccaagctt 1560
gagatcaaac gtacgactag ccatcaccat caccatcaca ctagctaatt aatttaagcg 1620
gccgctctag agtcgac 1637

<210> 18
<211> 532
<212> PRT
<213> artificial

<220>
<223> Synthetic Amino Acid Sequence

<400> 18

Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
1 5 10 15

Val His Ser Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Ala
20 25 30

Ser Pro Glu Glu Ile Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile
35 40 45

Gly Asn Trp Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ser Pro Gln
50 55 60

Leu Leu Ile Tyr Ser Ala Thr Ser Leu Ala Asp Gly Ile Pro Ser Arg
65 70 75 80

Phe Ser Gly Ser Arg Ser Gly Thr Gln Tyr Ser Leu Lys Ile Ser Arg
85 90 95

Leu Gln Val Glu Asp Thr Gly Ile Tyr Tyr Cys Leu Gln Arg Tyr Ser
100 105 110

Asn Pro Asn Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys Gly Gly
115 120 125

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser Gln Val Gln

130	135	140
Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ser Ser Val Lys		
145	150	155 160
Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr Asp Met His		
	165	170 175
Trp Ile Lys Gln Gln Pro Gly Asn Gly Leu Glu Trp Ile Gly Trp Ile		
	180	185 190
Tyr Pro Gly Asn Gly Asn Thr Lys Tyr Asn Gln Lys Phe Asn Gly Lys		
	195	200 205
Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu		
	210	215 220
Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg Asp		
225	230	235 240
Trp His Tyr Tyr Ser Ser Tyr Ile Arg Pro Phe Ala Tyr Trp Gly Gln		
	245	250 255
Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Glu Val Gln		
	260	265 270
Leu Leu Glu Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala Ser Val		
	275	280 285
Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr Gly Leu		
	290	295 300
Ser Trp Val Lys Gln Arg Pro Gly Gln Val Leu Glu Trp Ile Gly Glu		
305	310	315 320
Val Tyr Pro Arg Ile Gly Asn Ala Tyr Tyr Asn Glu Lys Phe Lys Gly		
	325	330 335
Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Ser Met Glu		
	340	345 350
Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg		
	355	360 365

Arg Gly Ser Tyr Asp Thr Asn Tyr Asp Trp Tyr Phe Asp Val Trp Gly
 370 375 380

Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly
 385 390 395 400

Gly Gly Ser Gly Gly Gly Gly Ser Glu Leu Val Met Thr Gln Thr Pro
 405 410 415

Leu Ser Leu Pro Val Ser Leu Gly Asp Gln Ala Ser Ile Ser Cys Arg
 420 425 430

Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His Trp
 435 440 445

Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr Lys Val
 450 455 460

Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser
 465 470 475 480

Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu
 485 490 495

Gly Val Tyr Phe Cys Ser Gln Ser Thr His Val Pro Tyr Thr Phe Gly
 500 505 510

Gly Gly Thr Lys Leu Glu Ile Lys Arg Thr Thr Ser His His His His
 515 520 525

His His Thr Ser
 530

<210> 19
 <211> 22
 <212> DNA
 <213> artificial

<220>
 <223> Primer

<400> 19
 gtgcagggcc agagaaggca tc

<210> 20
<211> 24
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 20
gtaggtcgct tgtggggaag tctc

24

<210> 21
<211> 34
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 21
cgtcgatgag ctctagaatt cccccccccc cccd

34

<210> 22
<211> 34
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 22
gcgccgtcta gaattaacac tcattcctgt tgaa

34

<210> 23
<211> 30
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 23
attgggacta gtctcaacga cagctggaat

30

<210> 24
<211> 34
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 24
caggtacagc tgctcgagtc tggggctgag ctag

34

<210> 25
<211> 33
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 25
gtaaatgtga gctccagatg acacagtctc ctg

33

<210> 26
<211> 24
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 26
ctagccatca ccatcaccat caca

24

<210> 27
<211> 24
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 27
ctagtgtgat ggtgatggtg atgg

24

<210> 28
<211> 36
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 28
aggtgtacac tccgatatcc agatgacaca gtctcc

36

<210> 29
<211> 51
<212> DNA
<213> artificial

<220>

<223> Primer

<400> 29

ggagccgccc cgcgcagaac caccaccacc ttccagctcc agcttggtcc c

51

<210> 30

<211> 53

<212> DNA

<213> artificial

<220>

<223> Primer

<400> 30

ggcggcgccg gctccggtgg tgggtgttct caggtacagc tgcagcaatc tgg

53

<210> 31

<211> 27

<212> DNA

<213> artificial

<220>

<223> Primer

<400> 31

aatccggaag agacagtgac cagagtg

27

<210> 32

<211> 28

<212> DNA

<213> artificial

<220>

<223> Primer

<400> 32

gcaggtgcag ctcgaggagt caggacct

28

<210> 33

<211> 27

<212> DNA

<213> artificial

<220>

<223> Primer

<400> 33

gaggtccagc tcgagcagtc tggacct

27

<210> 34

<211> 27

<212> DNA
<213> artificial

<220>
<223> Primer

<400> 34
caggtccaac tcgagcagcc tggggct 27

<210> 35
<211> 27
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 35
gaggttcagc tcgagcagtc tggggca 27

<210> 36
<211> 28
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 36
gaaggtgaag ctcgaggagt ctggagga 28

<210> 37
<211> 27
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 37
gaggtgaagc ttctcgagtc tggaggt 27

<210> 38
<211> 27
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 38
gaagtgaagc tcgaggagtc tggggga 27

<210> 39
<211> 27
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 39
gagggttcagc tcgagcagtc tggagct

27

<210> 40
<211> 30
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 40
tatgcaacta gtacaaccac aatccctggg

30

<210> 41
<211> 36
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 41
gagagagggg ttctgactag tgggcactct gggctc

36

<210> 42
<211> 30
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 42
ctccttacta gtaggacagg gggttgattgt

30

<210> 43
<211> 29
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 43
gttaccacta gtgcatgaag aacctgggg

29

<210> 44
<211> 32
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 44
ccagttccga gctcgttggtg actcaggaat ct

32

<210> 45
<211> 32
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 45
ccagttccga gctcgttggtg acgcagccgc cc

32

<210> 46
<211> 32
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 46
ccagttccga gctcgtgctc acccagtctc ca

32

<210> 47
<211> 32
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 47
ccagttccga gctccagatg acccagtctc ca

32

<210> 48
<211> 32
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 48
ccagatgtga gctcgtgatg acccagactc ca 32

<210> 49
<211> 32
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 49
ccagatgtga gctcgtcatg acccagtctc ca 32

<210> 50
<211> 32
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 50
ccagttccga gctcgtgatg acacagtctc ca 32

<210> 51
<211> 34
<212> DNA
<213> artificial

<220>
<223> Primer

<400> 51
gcgcgcgtcta gaattaacac tcattcctgt tgaa 34

<210> 52
<211> 4
<212> PRT
<213> Rattus norvegicus

<220>
<221> misc_feature
<222> (2)..(3)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (4)..(4)

<223> Fourth amino acid can be Leu or Ile

<400> 52

Tyr Xaa Xaa Xaa

1

<210> 53

<211> 6

<212> PRT

<213> Rattus norvegicus

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> First amino acid can be Ile or Val

<220>

<221> misc_feature

<222> (2)..(2)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (4)..(5)

<223> Xaa can be any naturally occurring amino acid

<400> 53

Xaa Xaa Tyr Xaa Xaa Leu

1

5

<210> 54

<211> 11

<212> PRT

<213> artificial

<220>

<223> Antigen

<220>

<221> DOMAIN

<222> (1)..(11)

<223> N-terminal amino acids of the zeta chain

<400> 54

Gln Ser Phe Gly Leu Leu Asp Pro Lys Leu Cys

1

5

10